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PULPWOOD CUT TOPS 24 MILLION CORDS

The South's 1961 pulpwood harvest rose to an all-time high of 24.2 million cords. This was 3 percent more than in 1960 and 60 percent of the Nation's total production. Four-fifths of the wood came from southern pines. The rest was hardwood.

The increase over 1960 was comprised entirely of hardwood bolts and chipped residues. Chip receipts rose 12 percent, to 3.2 million cords. The hardwood cut increased by 400,000 cords, to 4.9 million, with one-fourth of the gain being in the form of chips.

Though 70 percent of the hardwood was still from soft-textured species like gums and yellow-poplar, demand for firm-textured species has been steadily rising.

Nine of the twelve southern States cut more wood than in 1960. Georgia produced 4.9 million cords, to continue as southern leader for the fourteenth consecutive year. Alabama was second with 3.3 million cords, and was followed by North Carolina, South Carolina, and Florida, each with more than 2 million.

A new pulpmill opened in 1961, raising the South's total to 81. With expansions at other plants, daily pulping capacity is now 51,156 tons. This is 57 percent of the Nation's wood-pulping capacity.

A full report on 1961 pulpwood activity is available on request. --J. F. Christopher.

DEEP-PLANTED SEEDLINGS SURVIVE AND GROW WELL

In two Louisiana studies, loblolly and slash pine seedlings planted with half their stems below the surface survived as well as those planted with rootcollars at groundline. Trees with only the terminal bud exposed survived best in one test but poorest in the other. Height growth was increased but usually not enough to overcome the initial difference created by setting the trees deep.

In the first study, established in 1957, survival of loblolly pine after 3 years averaged 80 percent for normal planting, and 88 percent for trees set to half-stem and to the terminal bud. The difference was statistically significant at the 0.05 level. Heights at 3 years averaged 4.0 feet for normal planting, 3.7 for half-stem, and 3.6 for entire-stem planting. Slash pine survival ranged from 72 percent for normal and half-stem to 80 percent for entire-stem planting, but the differences were not significant. Third-year heights were 3.7 for normal, 3.8 for half-stem, and 3.5 for entire-stem planting.

In the second study, begun in 1958, survival averaged 95 percent for loblolly and 93 percent for slash after three years. Survivals for normal and half-stem plantings were about 6 percentage points higher than for deeper planting. As in the first study, growth was increased by deep planting, but normally planted stock averaged tallest at age 3.

Well-drained, excessively drained, and flat, imperfectly drained soils were represented, but differences among them were small and unimportant.

The tests suggest that it is unnecessary to set loblolly and slash pines precisely to the depth at which they grew in the nursery. To reduce the chance of shallow planting, it may be advisable to instruct crews to set trees to slightly deeper than rootcollar depth. U-rooting should, of course, be avoided.--*Eugene Shoulders.*

MIDSOUTH NOW PREDOMINANTLY URBAN

Though the Midsouth has long been known as a farming region, more than half its population now lives in towns and cities.

In Arkansas, Alabama, Louisiana, Mississippi, Tennessee, and in the forested sections of Oklahoma and Texas, the total number of people counted by the U.S. Census increased 9 percent--to 16.7 million--between 1950 and 1960. The proportion of the population living in places with 2,500 or more persons climbed from 44 to 55 percent. In towns and cities population grew more than one-third in the ten years, while in rural areas it shrank one-eighth.

Some 42 percent of the region's population lives in 23 metropolitan areas. These centers, which are the counties containing all cities or twin cities with 50,000 or more persons, do roughly 62 percent of the region's manufacturing, sell 53 percent of all retail goods, and build 44 percent of all new houses.

Four-fifths of the Midsouth's counties lost population from rural areas. The decline resulted mainly from migration of farm people to cities and other regions. In the 1950's the land planted to crops dropped 7 million acres or 24 percent, while that in timber increased roughly 5 million acres.

Associated with the decline of rural population is the shrinkage of the potential labor force in nonmetropolitan counties. The number of white men between 20 and 64 years of age fell 2 percent; but nonwhites, the primary source of forest labor, declined 12 percent. The workers who remained were generally older than those who left. In 1950 men over 40 years of age made up 45 percent of the male working force; by 1960 the proportion had risen to 51 percent.--*Clark Row.*

SOUTHERN HARDWOODS MAKE GOOD FENCE POSTS

Many southern hardwoods, if properly treated with preservatives, will give long service as fence posts. Only the heartwood of Osage-orange, mulberry, and black locust serves well without treatment.

In studies begun more than 20 years ago at Stoneville, Mississippi, coal-tar creosote and pentachlorophenol were found to preserve posts of cottonwood, sweetgum, American elm, bitter pecan, green ash, overcup oak, honeylocust, mixed oaks, water oak, and persimmon. Willow resisted the treatments and failed to give good service.

When retentions of preservative were adequate, both pressure-treating and the hot-and-cold-bath methods were satisfactory.--*B.E. Carpenter, Jr.*

MORE THAN ONE TREATMENT MAY BE NEEDED TO RELEASE UNDERPLANTED PINES

One hardwood control operation helps but may not release enough planted loblolly pines to insure an adequate stand. This is the apparent lesson from two recent studies in north Alabama where loblolly was underplanted on sites fully occupied by young upland hardwoods.

Best results were obtained by cutting or girdling all hardwoods over 5 feet tall or all that were more than 1.6 inches d.b.h. The hardwoods were treated at the time the pines were planted. Less intensive treatments were also tried, but with little success. No silvicides were used, and there were no follow-up treatments.

Pine survival after 12 years in one test averaged less than 50 percent, and more than half the survivors were overtopped by hardwood sprouts. For the other test, survival was 67 percent after 6 years and about 1/6 of the survivors were overtopped. A dense stand of hardwood sprouts covers both areas and appears to be retarding the growth of all surviving pines, overtopped or not.

Both studies strongly suggest that, where young hardwoods dominate a proposed planting site, control prescriptions should provide for repeat treatments, or for initial treatment with silvicides.--*H.A. Yocom.*

RECENT PUBLICATIONS

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*Halls, L.K., and Ripley, T.H. (Editors) *Deer browse plants of southern forests.* 78 pp.

*Koshi, P.T., and Stephenson, G.K. *Shade and mulch as influences on loblolly seedlings and their immediate environment.* Forest Science, June 1962, pp. 191-204.

*Krumbach, A.W., Jr. *Power sampler for frozen soil.* Soil Science Society of America Proceedings, March-April 1962, p. 209.

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*Zahner, Robert. *Loblolly pine site curves by soil groups.* Forest Science, June 1962, pp. 104-110.

*Copies are available at the Southern Station.